A Survey of the Size-flux Relation for Pores and Spots W. Li, G. X. Ai, H. N. Wang and S. D. Bao Beijing Astronomical Observatory, Beijing 100012, China

Using the vector magnetic field data from the Huairou Solar Observing Station of Beijing Astronomical Observatory, we study their size-flux relations for various magnetic elements identified as pores and spots. More than 1000 pores and spots which located near the central meridian are selected. The results show that there exists a nearly linear relation between the the magnetic flux and area of all elements. Such a relation may be useful for understanding the physical conditions and dynamical processes of magnetic flux tubes in the solar plasma during the sunspot's formation. In addition, their characteristic size is also given.